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## SOCIAL HISTORY UPDATE: A SOCIOLOGICAL APPROACH TO HISTORICAL SOCIAL MOBILITY

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The prevailing view among historians is that the “new urban history” never lived up to its initial promise. In seeking to account for this turn of events, some historians pointed to the various methodological problems that arose, while others referred to the cultural biases underlying the questions that were posed.<sup>1</sup> It may be a mistake, of course, to take explanations of this kind *too* seriously; indeed, whenever a new field of inquiry is opened up, its “academic half-life” is affected by a complex series of events, many of which are unrelated to the intellectual merits of the work itself. Although this interplay of political and intellectual forces may be difficult to disentangle, there can be little doubt about their overall effect. The study of social mobility is now regarded as an intellectual dead-end; it was recently described as “deep in the throes of Thermidorean reaction” against its quantitative models and methods.<sup>2</sup>

What must be emphasized, however, is that a different state of affairs prevails within the discipline of sociology. To be sure, we have also experienced a minor backlash against quantitative methods, but it is fair to say that the subfield of social mobility weathered the storm in impressive fashion. Over the last 15 years, the strongest forms of anti-quantitative criticism have been reserved for multivariate models of “status attainment,” while the simpler bivariate analyses of mobility classifications emerged more or less unscathed.<sup>3</sup> The subfield of mobility analysis has in fact flourished during this period; it has been transformed by the development of new models, new conceptual orientations, and new theoretical perspectives. The purpose of the present paper is to review some of these developments and suggest ways in which they might prove useful to social historians who remain interested in issues of mobility and persistence. If a “second wave” of new urban history ever emerges, we would hope that sociologists might make some small contribution to its methods of analysis.

In the course of our analyses and commentary, we will show that some of the most common critiques of the new urban history are effectively undermined by recent developments within sociology. It will be most relevant for our purposes to consider a series of critiques pertaining to the *methodology* of mobility analysis and the *conceptual orientation* of its approach. After reviewing these critiques in turn, we will discuss the relevant innovations in sociology and their implications for the analysis of early-industrial mobility. It should become clear as we progress through this commentary that social historians abandoned the study of mobility just as some of the most exciting developments in sociology emerged.

## Recent Methodological Innovations

The history of mobility research within sociology is in large part a history of methodological innovations. It is fitting, then, to launch our commentary by reviewing some of the most important methodological developments in the field. In recounting this history, we can usefully begin with the distinction between “structural” and “circulation” mobility, since it is here that we find the impetus for most of the modelling efforts that followed. The motivation behind this distinction is straightforward: it has long been recognized that the mobility in a cross-classified array is generated by shifts in the demand for labor as well as patterns of exchange between occupations.<sup>4</sup> The former component is best regarded as a nuisance factor, while the latter pertains to the openness of the mobility regime and the contours of class-based differences in life chances.<sup>5</sup> Although this verbal distinction between structural and circulation mobility is easy to maintain, it has been difficult indeed to represent it in formal models of the mobility regime. It would be no exaggeration to say that the last 30 years of research in the field has been motivated by this simple methodological problem.

The effects of “structurally-induced” mobility were ignored or dismissed in the earliest rounds of historical mobility research. It soon became fashionable, however, to criticize the early studies for failing to take into account the “urban context” and its effects on the occupational opportunities faced by workers. This critique took on various forms; in fact, some commentators used the term “context” to denote the cultural or institutional features of cities, while others were referring to patterns of industrial and occupational restructuring taking place in urban economies.<sup>6</sup> As the field matured, most scholars agreed that the latter types of restructuring should be controlled, but it turned out to be rather difficult to do so with the methods available at the time. In almost all cases, a simple decompositional approach had to be adopted, with the index of dissimilarity serving to operationalize the concept of structural mobility.<sup>7</sup> The disadvantages of this approach are now well-known; nonetheless, it would be a mistake to minimize the importance of these early studies, since they moved the field in a promising direction and provided the “opening shot” in efforts to describe the structure of early-industrial inequality.

The fundamental problem of “structurally-induced” mobility was solved with the development of log-linear models.<sup>8</sup> Under this new approach, the structural forces of supply and demand were purged from the data by fitting a set of marginal effects, while the remaining densities in the interior of the table were absorbed with a series of interaction effects.<sup>9</sup> This framework revolutionized the analysis of mobility tables among sociologists; however, within the field of social history, the study of mobility lost its momentum before these methods could be popularized. Although a few examples of log-linear analysis can be found in the social history journals, the underlying structure of early-industrial mobility still remains largely uncharted even at this late date.<sup>10</sup> We think this is an unfortunate state of affairs; indeed, without examining the parameters from a well-specified log-linear model, we simply cannot make reliable judgments about the openness of the stratification system or the structure of class-based differences in life chances.<sup>11</sup> It is *not* the case, then, that models of this kind merely “fine-tune” our understanding of social inequality or “summarize” the results achieved with other methods. In fact, when

we present a series of illustrative analyses in the following section, it will become clear that some of our commonly-held views about the structure of early-industrial opportunity may require considerable revision.<sup>12</sup>

## The Structure of 19th Century Mobility

It is difficult indeed to make judgments about the overall amount of mobility in the 19th century. The principal problem is that an element of subjectivity is always present when the numbers in a mobility table are translated into prose; there is no consensus, for example, on how much mobility is needed before the terms “open” or “fluid” can be safely invoked. It may be surprising, then, that a rather consistent story line emerged when the historical mobility studies were summarized and interpreted. In most cases, the secondary commentators put forward the view that there were “substantial opportunities” for mobility, even among workers originating at the bottom of the occupational structure.<sup>13</sup> The original investigators usually adopted a more balanced and cautious tone, but in some cases a “pervasive air of optimism” could be detected here as well.<sup>14</sup> It was only in the older northeastern cities that a more pessimistic conclusion was seen as warranted; the prevailing opinion, however, was that the results in these cities were a “glaring exception” rather than the rule.<sup>15</sup>

It could well be argued that conclusions of this kind contributed in some small way to the decline of the new urban history. In a recent commentary by Hartmut Kaelble, we are told that the “air of optimism” in *The Other Bostonians* was politically problematic, since it ran contrary to the standard revisionist goals shared by most social historians. It is worth quoting Kaelble at length:

There can be no doubt that the attack on the myth of 19th century America as the land of unlimited opportunities made social mobility a first-rate issue.... However, when several studies...[showed] that rates of social mobility in 19th century American cities had been substantial, the debate lost its momentum. A book by one of the revisionists, Stephan Thernstrom, revealed particularly high rates of social mobility and, hence, unwittingly became the *single most important factor* contributing to the growing disinterest in social mobility [emphasis added].<sup>16</sup>

The thesis advanced here is an intriguing one, not only because it speaks to the political processes underlying the rise and fall of subfields, but also because it suggests that the new urban history was indeed known for its optimistic tone. It is this “air of optimism” that stands out in the public mind despited the detailed, careful, and wide-ranging analyses carried out by the original investigators.

At this point, we would like to turn to our own analyses, since they provide a useful corrective to these popular interpretations of early-industrial mobility. The results from our analyses will cast new light on the “seamy side” of the 19th century: we will be exploring the contours of class-based inequalities and the structure of inter-class barriers in early-industrial America.<sup>17</sup> The data for these analyses will be drawn from a collection of five mobility studies covering the male labor force over the years 1855-1880.<sup>18</sup> As shown in table 1, we have secured three well-known data sets from cities in the northeast (lines 1-3), while the remaining

Table 1  
Supplementary Information on the Original Studies and Data Sources

| City            | Investigators         | Years   | Exclusions                                          |
|-----------------|-----------------------|---------|-----------------------------------------------------|
| 1. Buffalo      | Laurence A. Glasco    | 1855    | Males younger than 16; all females                  |
| 2. Poughkeepsie | Clyde & Sally Griffen | 1850-70 | Unemployed males under age 16; all females          |
| 3. Boston       | Stephan Thernstrom    | 1880    | Males with common names; all females                |
| 4. Holland, MI  | Gordon W. Kirk, Jr.   | 1850-80 | All females                                         |
| 5. Atlanta      | Richard J. Hopkins    | 1870-80 | Males older than 20 or younger than 39; all females |

NOTE: The data sets released by Clyde and Sally Griffen differed slightly from those used in their original analyses, but the discrepancies are too small to have any serious effects on the results.

two studies cover cities in the midwest and south (lines 4-5).<sup>19</sup> In all cases, we were able to recode the original occupational titles into a common classification, since the data sets were released to us in unit-record form.<sup>20</sup> The observed counts under our six-category classification are presented in table 2; the columns in this table index the “first occupations” of the respondents, while the rows refer to the occupations held by their fathers.<sup>21</sup>

Table 2  
Pooled Intergenerational Mobility Table for the Five City Samples

| Father's Occupation | First Occupation |     |     |     |     |     |
|---------------------|------------------|-----|-----|-----|-----|-----|
|                     | (1)              | (2) | (3) | (4) | (5) | (6) |
| 1. Upper Nonmanual  | 96               | 20  | 133 | 57  | 26  | 8   |
| 2. Proprietors      | 41               | 128 | 349 | 129 | 78  | 37  |
| 3. Lower Nonmanual  | 15               | 11  | 153 | 48  | 11  | 16  |
| 4. Craft Workers    | 38               | 48  | 301 | 920 | 235 | 170 |
| 5. Operatives       | 8                | 9   | 85  | 110 | 275 | 75  |
| 6. Laborers         | 9                | 11  | 130 | 320 | 215 | 520 |

Figure 1. Densities of Mobility and Immobility for the 6 x 6 Intergenerational Table. The occupational categories are: (a) upper nonmanuals, (b) proprietors, (c) lower nonmanuals, (d) craft workers, (e) operatives, and (f) laborers. See text for details.

Figure 2. Scale Values Estimated Under Model II\* for the 6 x 6 Intergenerational Table.

We have applied a standard “topological model” to this 6 X 6 classification. As shown in figure 1, we can present the estimates under this model in graphical form, with the vertical axis representing the densities of interaction in the table.<sup>22</sup> The pattern that emerges might be described as a mountain ridge flanked by a plateau

and intersected by a broad river valley.<sup>23</sup> In the immediate foreground of the figure, we can see the densities of working class persistence in the form of two mid-sized peaks, while the adjacent bars off the main diagonal represent the propensities for exchange within the working class. If we continue moving towards the top of the manual sector, we find that the inheritance ratio declines in dramatic fashion, leaving the main diagonal barely distinguishable from the surrounding off-diagonal cells. The two sides of the manual-nonmanual barrier become visible as we progress towards the center of the table; however, this barrier is unequal in strength, with the manual side showing some evidence of erosion, while the nonmanual side takes the form of a steep cliff marking off the entire northwest quadrant. The towering bars at the top of this cliff represent the extreme residue of persistence among the most privileged groupings.<sup>24</sup>

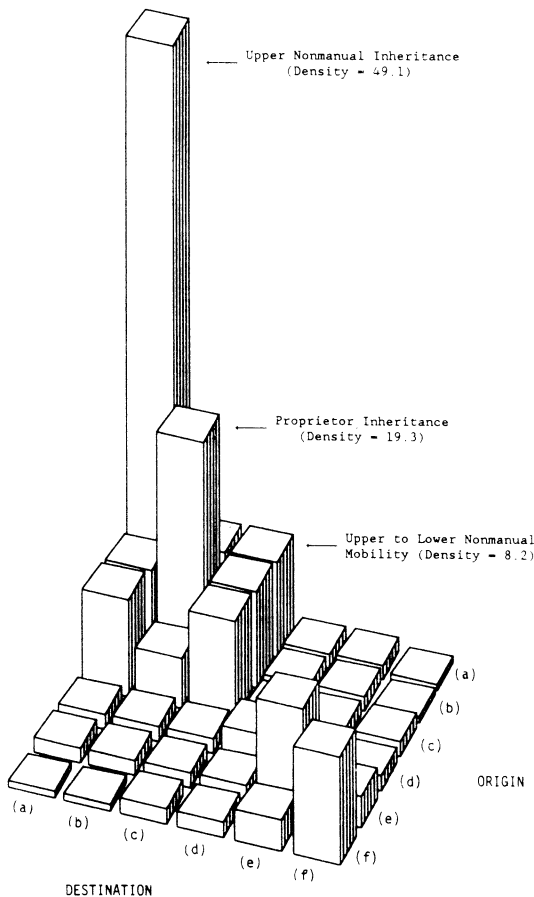


Figure 1. Densities of Mobility and Immobility for the 6 × 6 Inter-generational Table. The occupational categories are: (a) upper nonmanuals, (b) proprietors, (c) lower nonmanuals, (d) craft workers, (e) operatives, and (f) laborers. See text for details.

The peaks and valleys in this figure testify to the strength of class-based inequalities in America.<sup>25</sup> The tallest peak, for example, indicates that children with upper nonmanual fathers were 49.1 times more likely to remain at the top of the occupational structure than to fall to the bottom [see cell (a,a)]. Moreover, even when these children did leave their occupation of origin, they were 8.2 times more likely to assume another white-collar job than to move to the lower-end of the manual sector [see cells (a,b) and (a,c)].<sup>26</sup> The contours in the foreground of the figure are somewhat less impressive, but even here the ratios on the diagonal are well above unity [i.e., in cells (e,e) and (f,f), the density is 8.2]. It is only in the interior of the table that the clustering of counts becomes less pronounced; in fact, the “middle class” of craft workers not only recruits its incumbents from a broad base of occupations, but it also disperses its children across the occupational hierarchy in a balanced fashion [see row d and column d]. The latter results are the only ones that might be seen as consistent with an “optimistic position” on early-industrial mobility.<sup>27</sup>

The most important point, however, is that these class-based rigidities may be *weakening* over time. Indeed, when the same topographical model is applied to a contemporary table, the clustering on the diagonal becomes less prominent and the “steep cliff” marking off the nonmanual sector recedes into the surrounding valley.<sup>28</sup> It should be noted, moreover, that changes of this kind may well be occurring on a *world-wide* basis; the preliminary results from an ambitious comparative project led by Harry Ganzeboom indicate that dozens of countries throughout the world are becoming more fluid and open.<sup>29</sup> If these results stand up to further analysis, we would have to conclude that the “eerie continuity” described by Thernstrom has been replaced by a global movement towards universalistic principles.<sup>30</sup> The great task facing historians and sociologists alike is to uncover the driving force behind these types of world-wide changes in stratification systems.

## Recent Conceptual Innovations

The purpose of the prior analyses was to describe the flow of individuals through the occupational structure. We have used the estimates in figure 1 to specify the “life-chances” of individual workers and to document the inequalities under early-industrial capitalism. What must be emphasized, of course, is that an approach of this kind has been frequently criticized by sociologists and historians of a “structuralist” persuasion.<sup>31</sup> In the most extreme version of these critiques, it is claimed that the standard forms of mobility research are overtly conservative, since they divert attention from the structure of social inequality and the facts of domination or exploitation. According to this viewpoint, our fundamental interest should be in the structure of social classes, while the study of mobility itself is best seen as a “bourgeois problematic” of purely secondary concern.<sup>32</sup>

The latter critique raises a host of issues that cannot be adequately addressed here. It is important, however, to note that the study of social mobility has been informed by a wider range of orientations and interests than the critics have allowed. Although the analytic approach adopted in the prior section may still be the dominant one, we would argue that a second tradition of inquiry has also emerged and flourished over the last two decades. The starting point for this

alternative approach has been the Weberian premise that a social class comprises “the totality of...situations within which individual and generational mobility is easy and typical.”<sup>33</sup> If classes are indeed structured in this fashion, then their size and composition can no longer be regarded as matters resolvable on theoretical grounds alone. Instead, the mobility table itself becomes a “map” of the stratification system, with the patterns of inter-occupational exchange serving to reveal the major cleavages and class divides.<sup>34</sup> The basic point, then, is that classes are made up of aggregates of individuals with similar mobility chances.

The implications of this approach are best illustrated by turning directly to the data. In the following example, we will continue to use the same 6 × 6 table, but our analyses will now be carried out with a standard association model (“Model II\*”).<sup>35</sup> The imagery underlying Model II\* is simple indeed; as suggested by figure 2, the model scales the occupations in terms of their patterns of dispersal and recruitment, with the inter-category distances growing smaller as these patterns become more similar.<sup>36</sup> In the present case, the inter-category distances are strong and significant, and the hypothesis of equal opportunity can be decisively rejected. The manual-nonmanual cleavage looms especially large; at the same time, the inter-category distances within the manual sector are by no means trivial, with laborers falling well below the old middle class of craft workers. The cleavages within the nonmanual sector are minor in comparison; we must keep in mind, of course, that our data were collected well before the “proletarianization” of clerical labor.<sup>37</sup> It should come as no surprise, then, that the manual-nonmanual divide is so prominent in the 19th century. Indeed, rather than being a “myth” which sociologists have imposed on the 19th century, this cleavage between the two sectors appears to have been of fundamental importance in structuring individual life-chances.<sup>38</sup>

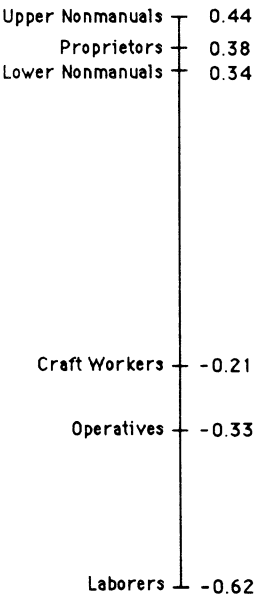


Figure 2. Scale Values Estimated Under Model II\* for the 6 × 6 Inter-generational Table.

It would be a mistake, however, to end our story here. If our goal is to understand the demographic structure of classes, we must also consider patterns of recruitment and inflow over the lifecourse. It has long been argued that a "developed class formation" can only emerge when a hereditary pattern of recruitment creates a core of incumbents who share a common set of life situations.<sup>39</sup> In this context, it is of some interest to note that only 12.6 percent of the manual workers in our five-city sample were recruited from nonmanual occupations, while the remaining 87.4 percent might be regarded as hereditary proletarians. At the same time, we find a far broader base of recruitment within the nonmanual sector, with a full 40.3 percent of the current incumbents originating from manual families. It follows, then, that the latter sector has a rather weak demographic identity; the continuous influx of "new blood" has produced a heterogeneous grouping of individuals at the top of the occupational structure. It is in this sense that one might question the "class character" of the nonmanual sector.

We will not be tracing out the implications of these results in any detail. The important point for our purposes is that the inter-occupational flows in a mobility table can provide new insights into some of the long-standing debates about the early-industrial class structure.<sup>40</sup> This is not to say that debates of this kind can be *resolved* on the basis of demographic data; we can be certain that a host of additional factors will always come into play. However, if a set of minimal demographic conditions has not been met, then the process of "class structuration" certainly becomes more problematic.<sup>41</sup>

## Conclusions

There may be a feeling of malaise within sociology at large, but among scholars of social mobility these are exciting times. After decades of methodological work, we now have a wide selection of models that solve the fundamental problems of mobility analysis, and the important empirical issues in the field can finally be addressed. To be sure, there is still some scattered methodological skirmishing, but this is typically taking place on the sidelines, and most scholars are turning to the task of exploiting log-linear and related models for substantive ends.

In the present review, we have focused on these recent methodological developments, since we agree with Conzen that "the answer for urban history is not less quantification, but...better quantification."<sup>42</sup> It is difficult indeed to make inferences about the structure of mobility without fitting models that remove the confounding effects of occupational supply and demand. It is not the case, then, that the models presented here merely restate the results achieved with other methods in an esoteric fashion. In fact, when we turned to a series of illustrative analyses, we found that the inequalities under early-industrial capitalism were far more extreme than some commentators have implied.

We think that some of the models presented here could prove useful to social historians. It would be naive, of course, to suppose that these new developments in sociology will lead to an immediate resurgence of interest in historical social mobility. However, we have no doubt that the field will eventually be resurrected, if only because it speaks to fundamental concerns about the patterns and contours of inequality. It is our hope that sociologists will make some small contribution

when this "second round" of new urban history is written.

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## FOOTNOTES

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1. Kathleen Neils Conzen, "Quantification and the New Urban History," *Journal of Interdisciplinary History* XIII (1983): 673-77; John Sharpless, "In Search of Community: A New Theme for the Old New Urban History," *Reviews in American History*, XXX (1977): 215-22; James Henretta, "The Study of Social Mobility: Ideological Assumptions and Conceptual Bias," *Labor History* XVIII (1977): 165-78; Michael Frisch, "Poverty and Progress: A Paradoxical Legacy," *Social Science History* 10 (1986): 15-22.

2. Conzen, "Quantification and the New Urban History," p. 654; also, see Hartmut Kaelble, "Foreword by the Guest Editor," *Journal of Social History* 17 (1984): 405-9.

3. Lewis A. Coser. "Presidential Address: Two Methods in Search of a Substance," *American Sociological Review* 40 (1975): 691-700.

4. This is not to say that the marginal distributions in a mobility table reflect the structure of the labor force alone. The origin marginals in an intergenerational table are also affected by patterns of maternity, paternity, and mortality [see Otis D. Duncan. "Methodological Issues in the Analysis of Social Mobility," in N.J. Smelser and S.M. Lipset, eds., *Social Structure and Mobility in Economic Development* (Chicago, 1978)].

5. It should be clear from this account that we are referring to mobility between *occupationally-defined* categories. The prevailing view among sociologists is that the occupational order forms the "backbone of the reward system" [Frank Parkin, *Class Inequality and Political Order* (London, 1971): 19].

6. Roberta Balstad Miller. "The Historical Study of Social Mobility: A New Perspective," *Historical Methods Newsletter* 8 (1975): 93-94; Anthony E. Broadman and Michael P. Weber. "Economic Growth and Occupational Mobility in 19th Century Urban America: A Reappraisal," *Journal of Social History* (1977): 52; Theodore Hershberg. "The New Urban History: Toward an Interdisciplinary History of the City," in Theodore Hershberg, ed., *Philadelphia: Work, Space, Family and Group Experience in the Nineteenth Century* (New York, 1981).

7. Derek S. Linton. "Industrialization and Intergenerational Social Mobility in a Rhenish Textile Town," *Journal of Interdisciplinary History* XVIII (1987): 107-26; Gordon W. Kirk, Jr. *The Promise of American Life* (Philadelphia, 1978): 135-45; Stephen Thernstrom. *The Other Bostonians. Poverty and Progress in the American Metropolis 1880-1970* (Cambridge, 1973): 105.

8. Michael E. Sobel, Michael Hout, and Otis D. Duncan. "Exchange, Structure, and Symmetry in

Occupational Mobility," *American Journal of Sociology* 91 (1985): 359-72; also, see Leo A. Goodman. "Some Multiplicative Models for the Analysis of Cross-Classified Data," in *Proceedings of the Sixth Berkeley Symposium on Mathematical Statistics and Probability* (Berkeley, 1979); Robert M. Hauser. "A Structural Model of the Mobility Table," *Social Forces* (1978): 919-53; Leo A. Goodman. "Multiplicative Models for the Analysis of Occupational Mobility Tables and Other Kinds of Cross-Classification Tables," *American Journal of Sociology* 84 (1979): 804-19; Michael Hout, *Mobility Tables* (Beverly Hills, 1983).

9. This approach should become clearer when we carry out an illustrative analysis in the following section.

10. J. Morgan Kousser, Gary W. Cox, and David W. Galenson. "Log-linear Analysis of Contingency Tables: An Introduction for Historians with an Application to Thernstrom on the 'Floating Proletariat,'" *Historical Methods* 15 (1982): 152-69.

11. The parameters of a log-linear model are functions of the odds ratios in a table. It would suffice, therefore, to examine the odds ratios themselves if we wished to understand the underlying structure of inequality in the data.

12. It should be obvious by now that we are rather partisan in our assessment of log-linear modelling. What must be stressed, of course, is that our views are widely shared by other scholars throughout the discipline; the major journals in sociology have been dominated by log-linear analyses over the last ten years. To be sure, the journals also include the usual amount of methodological skirmishing, but for the most part the debates have been purely internal ones about the merits or shortcomings of *particular types* of log-linear models [see Keith Hope, "Comparative Mobility: Can the Structural Model Cope?" *Comparative Social Research* 7 (1984): 427-41; Jae-On Kim, "Social Mobility, Status Inheritance, and Structural Constraints: Conceptual and Methodological Considerations," *Social Forces* 65 (1987): 783-805; K.I. Macdonald, "On the Formulation of a Structural Model of the Mobility Table," *Social Forces* 60 (1981): 557-71; Robert Erikson and John H. Goldthorpe. "Is Social Mobility Best Analyzed by Association Models?" Unpublished paper, presented to the *International Sociological Association Research Committee on Social Stratification*, Stanford, California, 1989/]

13. Kaelble, "Foreword by the Guest Editor," p. 406; Richard C. Wade, "Foreword," in Thomas Kessner, *The Golden Door: Italian and Jewish Immigrant Mobility in New York City 1880-1915* (New York, 1977): vii; but, also see Peter Decker. *Fortunes and Failures: White-Collar Mobility in Nineteenth Century San Francisco* (Cambridge, 1978): vii.

14. Miller, "The Historical Study of Social Mobility," p. 92; Stanley L. Engerman. "Up or Out: Social and Geographic Mobility in the United States," *Journal of Interdisciplinary History* 5 (1975): 488-89; Thernstrom, *The Other Bostonians*, pp. 257-58.

15. Thernstrom, *The Other Bostonians*, p. 247.

16. Kaelble, "Foreword by the Guest Editor," p. 406.

17. We will be using the term "class" to refer to aggregates of individuals with similar mobility chances (see section 3.0 for more details).

18. We have secured additional data on career mobility from Stuart M. Blumin, Don H. Doyle, Dean R. Esslinger, and Peter R. Knights. These studies have been omitted from table 1 because our analyses will be based on intergenerational data alone (see David B. Grusky. "American Social Mobility in the 19th and 20th Centuries," Center for Demography and Ecology Working Paper 86-28 (1986), University of Wisconsin-Madison). It is unfortunate, of course, that data on the mobility experiences of women are not available.

19. We will be pooling the data from the five studies into a single mobility table. Although we found some evidence of "city effects" in our earlier research, these were not large enough to warrant dividing the data into separate tables (see Grusky, "American Social Mobility," p. 39). It is useful for our

purposes to present a picture of the "average mobility regime" in the 19th century.

20. It should be noted that the farm population was excluded from these analyses. The procedures used to recode the remaining occupational titles are described by Grusky in an unpublished research report ("American Social Mobility," pp. 23-27).

21. We have adopted the definition of "first occupation" introduced in *The Other Bostonians* (see Thernstrom, *The Other Bostonians*, p. 62; also see Grusky, "American Social Mobility," pp. 17-21).

22. We used the procedures outlined by Hauser to construct the "design matrix" for this model [Robert M. Hauser. "Some Exploratory Methods for Modeling Mobility Tables and Other Cross-Classified Data," in Karl F. Schuessler, ed., *Sociological Methodology*, 1980 (San Francisco, 1979)].

23. The 5 x 5 design matrix introduced by Featherman and Hauser can be described in similar terms [see David L. Featherman and Robert M. Hauser, *Opportunity and Change* (New York, 1978): 152].

24. The likelihood-ratio test statistic for the model in figure 1 is 38.3 with 19 degrees of freedom. This value is significant at  $\alpha = 0.05$ ; however, the test statistic accounts for 98.3 percent of the total association, and the fitted values misclassify only 2.6 percent of the respondents.

25. The results in this figure are not inconsistent with the "high rates" of observed mobility described by some social historians. The important point, however, is that the latter findings arise from various types of structural forces rather than an underlying openness in the mobility regime.

26. It should be emphasized that our interpretations pertain to the densities in the table *after* the marginal effects are controlled.

27. It is instructive to compare our results with those produced by simple Rogoff ratios (see Thernstrom, *The Other Bostonians*, pp. 107-10).

28. These results are available from the authors upon request [also, see Grusky, "American Social Mobility;" Michael Hout. "More Universalism, Less Structural Mobility: The American Occupational Structure in the 1980s," *American Journal of Sociology* 93 (1988): 1358-1400.]

29. Harry B.G. Ganzeboom, Ruud Luijkx, and Donald J. Treiman. "Intergenerational Class Mobility in Comparative Perspective," Unpublished paper, Department of Sociology, University of California, Los Angeles, California.

30. Thernstrom, *The Other Bostonians*, p. 110.

31. See, e.g., Henretta. "The Study of Social Mobility," pp. 165-78; also, see Patrick M. Horan. "Occupational Mobility and Historical Social Structure," *Social Science History* 9 (1985): 25-47; Michael B. Katz. *The People of Hamilton, Canada West: Family and Class in a Mid-Nineteenth-Century City* (Cambridge, 1975): 135-36; Nicos Poulantzas. *Classes in Contemporary Capitalism*. (London, 1974): 33; G.B. Osipov. "The Class Character of the Theory of Social Mobility," in P. Hollander, ed., *American and Soviet Society* (Englewood Cliffs, 1969).

32. Consider, for example, the following excerpt from Poulantzas (*Classes in Contemporary Capitalism*, p. 33): "It is clear that, even on the absurd assumption that from one day to the next...the bourgeoisie would all take the places of workers and vice versa, nothing fundamental about capitalism would be changed, since the places of bourgeoisie and proletariat would still be there, and this is the principal aspect of reproduction of capitalist relations."

33. Max Weber. "Status Groups and Classes," in Guenther Roth and Claus Wittich, eds., *Economy and Society* (Berkeley and Los Angeles, 1978): 302.

34. Ronald L. Breiger. "The Social Class Structure of Occupational Mobility," *American Journal of Sociology* 87 (1981): 578-611; R. Vanneman. "The Occupational Composition of Classes: Results

from Cluster Analysis." *American Journal of Sociology* 82 (1977): 783-807; Horan, "Occupational Mobility and Historical Social Structure."

35. See, e.g., Goodman, "Multiplicative Models for the Analysis of Occupational Mobility," Hout, *Mobility Tables*, pp. 56-58.

36. The results presented in figure 2 were generated after blocking the main diagonal of the table. The final model returned a likelihood-ratio test statistic of 23.2 with 14 degrees of freedom. We have normalized the scale values by imposing the restrictions described by Leo Goodman ["Simple Models for the Analysis of Association in Cross-Classifications Having Ordered Categories," *Journal of the American Statistical Association* 70 (1979): 548].

37. See, e.g., Harry Braverman. *Labor and Monopoly Capitalism* (New York, 1974).

38. The position taken by Michael Katz is that "the distinction between...manual and nonmanual work did not exist [in the mid-19th century] with anything like the sharpness it has since assumed" (Katz, *The People of Hamilton*, p. 9).

39. The following discussion relies heavily on the path-breaking work of John Goldthorpe [John H. Goldthorpe. *Social Mobility and Class Structure in Modern Britain* (Oxford, 1987); also, see Anthony Giddens, *The Class Structure of the Advanced Societies* (New York, 1973)].

40. It might be instructive, for example, to apply this demographic approach to the marxian "two-class" thesis advanced by Michael Katz; we suspect that the results would call into question some of his interpretations and conclusions [see Michael B. Katz, Michael J. Doucet, and Mark J. Stern. *The Social Organization of Early Industrial Capitalism* (Cambridge, 1982)].

41. Giddens, *The Class Structure of the Advanced Societies*, pp. 107-12.

42. Conzen, "Quantification and the New Urban History," p. 676.